

INSTRUCTION BOOK

FOR THE

HIGH-ARM

Philadelphia Singer

SEWING MACHINE.

MANUFACTURED BY

THE C. A. WOOD CO.

17 North 10th Street,
PHILADELPHIA, PA.

15 East 14th Street,
NEW YORK.

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GENERAL INSTRUCTIONS.

Every machine before leaving the factory has been carefully adjusted and minutely inspected, its sewing qualities have been tested on all kinds of work and found perfect in every respect.

After using the machine see that it is always well cleaned before putting it away.

Before commencing to sew, be certain to oil and clean it according to instructions.

Do not tamper with the adjustments of the machine; serious trouble is almost sure to result from any unnecessary meddling with the working parts.

Attention to the instructions here given, and a little practice, will soon enable the learner to successfully operate the machine and attachments.

Do not attempt to use the attachments until you can manage the machine with ease on plain sewing.

The cause of a machine not working properly will almost invariably be found in the improper setting of the needle, or on account of the needle being bent a trifle; by the use of poor thread, or because the operator has not been particular to choose the right number of needle for the size of thread required.

Do not neglect to carefully read all of the following instructions, or consider it time wasted to do so, even if you are perfectly familiar with operating the machine.

Do not run the machine when it is threaded up, unless there is cloth underneath the presser foot; if you do, the thread will snarl and tangle, and perhaps bend or break the needle.

If for special manufacturing or tailoring work, a throat plate with a larger hole is desired, it will be furnished free of charge on application.

When ordering needles, shuttles, or parts of any kind, always give the plate number of machine, which will be found stamped in the iron bed underneath the front slide-plate.

The presser foot must never be let down on the feed when the machine is running unless there is cloth between, as the sharp teeth of the feed would injure the bottom of the foot.

To turn a corner stop the machine without raising the needle more than half way out of the work. Raise the presser foot and turn the work in the manner desired, using the needle as a pivot.

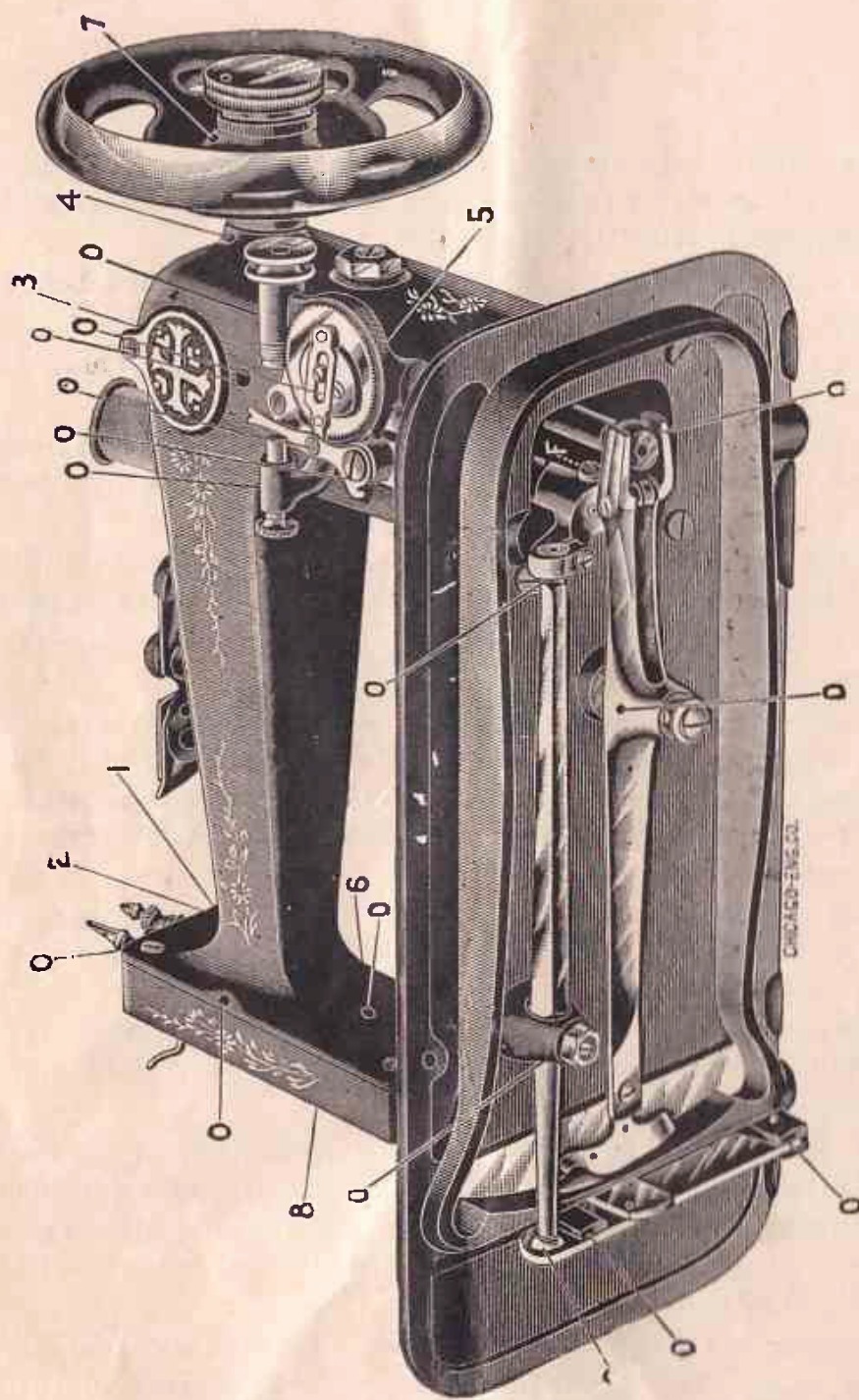


Fig. 1.

OILING THE MACHINE.

TO OIL THE MACHINE.

(See Figure 1, opposite page.)

There is nothing more important to insure the satisfactory working of the machine than to keep it thoroughly cleaned and well oiled.

Use nothing but the best quality of oil. Turn the machine a little as the oil is put on, to distribute it in the bearings. Always clean the machine well before putting on fresh oil.

If the oil is poor, or the machine is allowed to stand a long time without using, the oil may dry out or get thick and gummy, which will cause the machine to run very hard. When this is the case flood all the bearings with kerosene, run the machine a few moments, and wipe perfectly dry, then be careful to oil every bearing plentifully. This is very important; if a place is missed the kerosene will evaporate, leaving the bearing dry. After oiling wipe off any superfluity, to prevent soiling the work.

Oil daily, or as often as there is any indication of dryness. If the machine runs hard it is a sure indication that oil is needed.

The places for oiling are indicated by the figures 1, 2, 3, &c. and the letter O. This distinction is made to call particular attention to the most important bearings, which are indicated by the figures. Great harm is often done by the operator overlooking a bearing, and neglecting to oil it, hence we emphasize the important places. No. 1 is the small oil hole in the back part of the face plate, near the top. Turn the machine so that the needle-bar is at its highest point. Insert the spout of the oil can in this hole, putting in a few drops of oil each time. This oils the heart cam and roll. No. "2" is left main shaft bearing. No. "3" eccentric bearings. No. "4" is right main shaft bearing. No. "5" is for oiling the stitch block. Insert the spout of the oil can through the slot in the stitch index at this point, and oil just above the screw head found there. No. "6" is presser bar lifter and presser bar gib at the back of face plate. Do not neglect the oil hole in the side of the loose pulley No. "7" or No. "8", which is the small hole in the front of the face plate. Besides this, oil at the points marked "O", and by recollecting that every place should be carefully oiled where there is any friction caused by one part moving on another, you will have no trouble. A drop on the shuttle race once a day, against which the face of the shuttle rubs, will be sufficient when the machine is in use. The needle-bar works in a felt packing, which absorbs and retains the oil, so that very little is required. Do not put on so much that it will run down through the needle-slot and soil the thread. Oil a little and often is a good motto, and be careful to keep the machine wiped clean, so that the thread or work will not be soiled.



Fig. 1.

TO OIL THE STAND.

The stand should be oiled in six places, which are indicated by the letters A, B, C, D, E and F, as shown on the engraving. A and B mark the points to center screws on each side of the wheel crank; C the upper end and D the lower end of pitman; E and F mark the treadle center screws.

If, after long use, lost motion is noticed in the stand wheel or treadle, it can be taken up on the former by loosening the lock nut on the inside wheel center, and screwing the center in enough to take up the wear, after which the lock nut should be screwed down again. On the treadle the wear should be taken up equally with both centers.

TO CHANGE THE SELF-SETTING NEEDLE.

To take the needle out, raise the needle-bar to its highest point, loosen the needle clamp screw by a slight turn towards you, and slip the needle down until it is free.

To set the needle, take it in the left hand, placing the point through the hole in needle plate, and pass it up into the bar, and be sure you push it up as far as it will go, with the long groove of the needle to your left, and the short groove and the flattened shank to the right.

TO THREAD THE SHUTTLE.

Hold the shuttle in the left hand with the point towards you. Drop the bobbin into the shuttle *so that the thread in sewing will draw from the upper side*, then draw the thread into the open slot towards you, at the same time putting a little pressure with your finger upon the end of the bobbin so it cannot turn, the thread will be forced under the lip of the shuttle spring; the shuttle is then threaded ready for use.



Fig. 8

(SELF-THREADING SHUTTLE.)

Place the shuttle in the carrier point first and toward you, and hold the end of the upper thread loosely by the left hand, turn the fly wheel once around, when the two threads will have become locked and can be drawn through the needle plate by an upward movement of the hand. Pass the two thread ends back from you, put the slides into their places over the shuttle, turn the fly wheel until the needle is raised to the highest point, then put the goods under the presser foot, and drop it down. Now see that the shuttle slides are both closed over the shuttle and the machine is ready to commence sewing.

TO REMOVE THE SHUTTLE.

Draw out the front slide plate, turn the machine until the shuttle is nearest the operator, and then carefully remove it from its carrier. Do not try to pry it out with the point of a screw driver or anything that will be apt to injure or bend the shuttle spring.

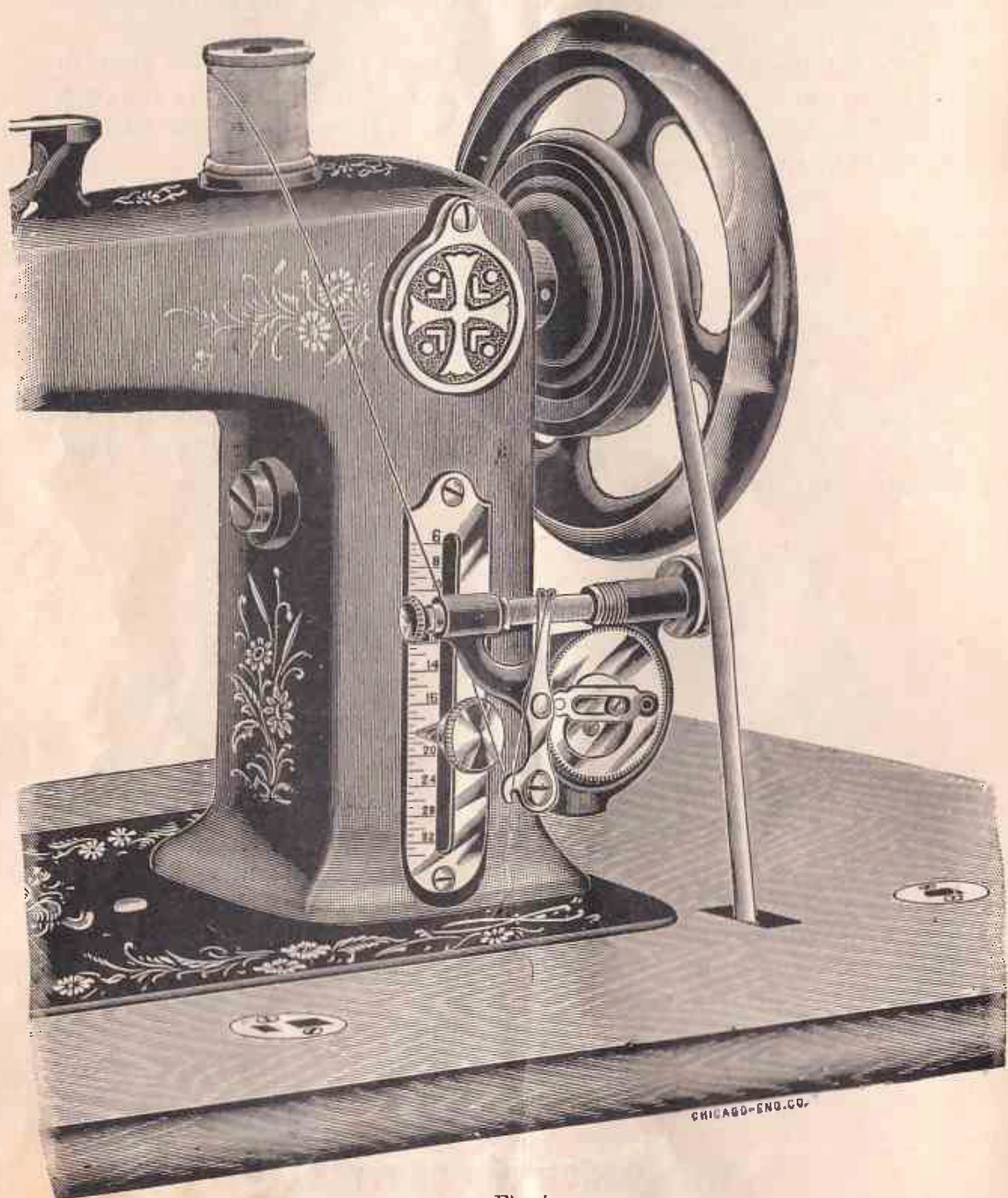


Fig 4.

WINDING THE BOBBIN.

TO WIND WITH THE AUTOMATIC BOBBIN WINDER.

To place the bobbin winder in position for filling the bobbin, pull it out until the little pulley wheel of the winder presses against the belt. Take the bobbin in the left hand and the thread in the right. Place the left hand center of the bobbin in the little depression for it in the end of the spooler spindle, and by pressing to the left the spindle will move back and allow the head of the bobbin to enter the friction cavity or cup. As it enters this cavity see that the end of the thread goes with it, and that it is held in the cup by the pressure of the bobbin head. This will hold the thread securely when the winder starts. Unless this is done, it will be necessary to wrap the thread several times around the shank of the bobbin, or else tie it, in order to get it started. Draw the thread in the notch at the top of the distributing bar, then down under the notch at lower end of the distributing bar.

Start the balance wheel from you; this will operate the loose pulley and the bobbin winder. After you are through winding, swing the winder around where it will be out of the way of belt and stitch regulator.

NOTE.—The end of bobbin that turns in the cavity at the left should be oiled at every winding. The end of bobbin resting in the friction cavity *should never be oiled*, but kept dry and clean. Never over-fill the bobbin.

THE PRESSER FOOT.

The pressure of the foot is presumed to be right for ordinary sewing, but can be graduated by the presser bar screw (See P., Fig. 5, Page 10), turning it to the right or downward for more pressure, or to the left or upward for less pressure. For very thick or heavy goods it may be necessary to increase the pressure, and for the very lightest work to decrease it. If there is not pressure enough on the goods they will not feed properly; if too much, thin goods will be cut.

NOTE.—The presser foot must be set so that the needle passes midway between the two prongs. If the foot is set a little to one side or the other it is likely to push the needle out of its proper path, so that it will strike the needle plate or cut the upper thread.

The presser foot is raised by the little lever at the back of the face plate, which is called the presser bar lifter. When turned to the left it raises the presser foot to its highest position. When turned to the right it gives a medium position, which is the best for all ordinary sewing, especially for hemming, felling, etc.

Avoid pushing and pulling the goods through while stitching, *particularly the latter*. This is usually the cause of needles breaking. The operator will grasp the goods after they have passed over the feed and pull them with the idea of aiding the feed. If the goods stretch or slip a little they will be apt to carry the needle with them, that is, bend it a trifle out of its right position, so that it will either strike the needle plate or be drawn out into the shuttle race and struck by the shuttle.

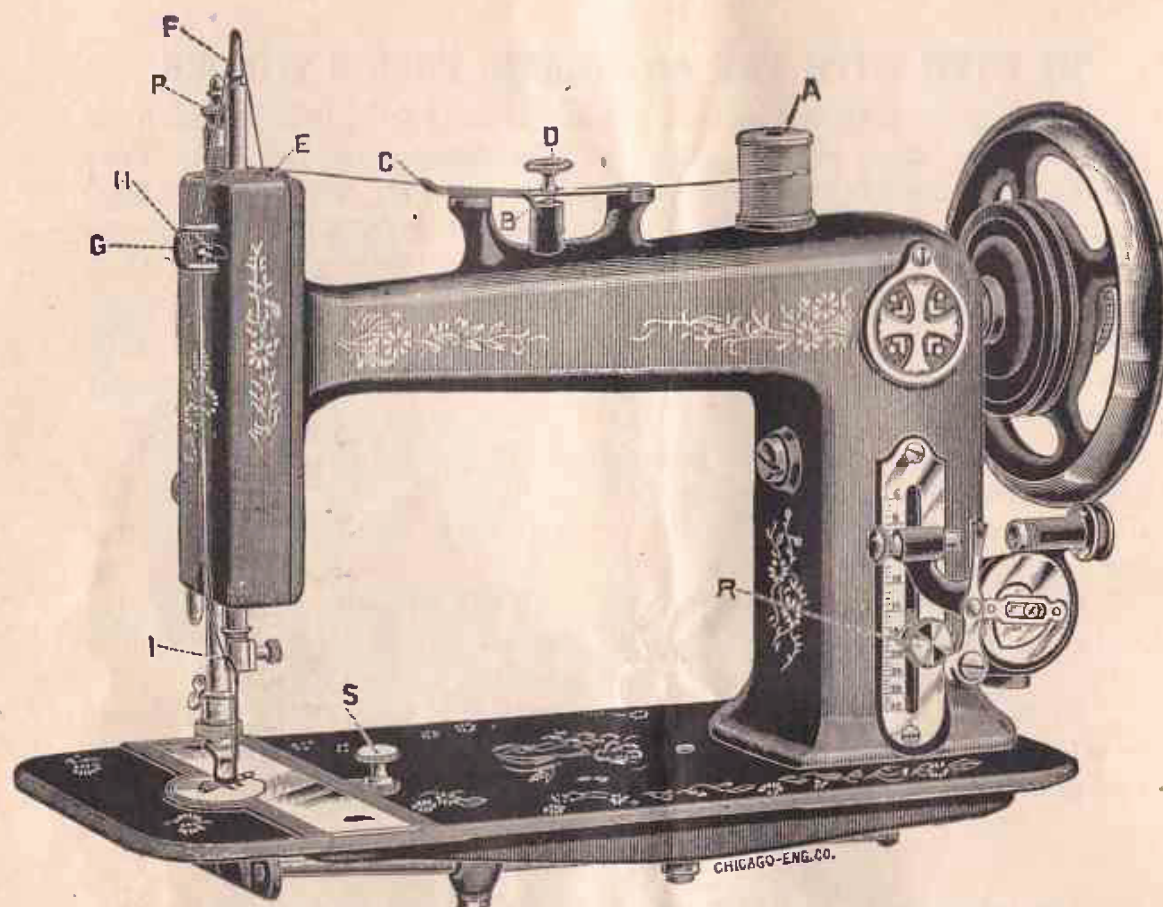


Fig. 5

TO THREAD THE MACHINE.

Place the spool on the spool pin A, pass the thread under the curved point of the upper tension spring B, drawing it between the two springs into the little notch in the center of the under spring at C. By holding back on the thread with the right hand while drawing it between the springs with the left, the pressure of the springs will readily be overcome. If you attempt to draw the thread through the springs with one hand you will be apt to break it. Always have the thread pass back of the tension screw D. Next pass it under the little spring thread guide marked E on top of the arm, then through the slot in the top of the needle bar F. Pass a loop of the thread through the take-up staple G from the back towards you, slipping the loop over the end of the take-up H, then carry the thread through the eye of the needle from left to right, leaving two or three inches extended, and, lastly, with the finger slip the thread through the thread guide on needle clamp marked I.

SEWING GUIDE.

This is fastened to the bed of the machine by the thumb-screw S (See Fig. 5,) and enables the operator to sew at a given distance from the edge of the goods.

TO REGULATE THE TENSION—(Lower Thread).

For most all ordinary work this does not require changing, the stitch being governed by the upper thread. If the shuttle thread draws easily and smoothly, but with a firm feeling, it is probably right, and the stitch should be perfected by the upper tension. The shuttle tension is obtained by means of the screw near the point of the shuttle. Turn it to the right to increase, and to the left to diminish the pressure of the thread. This change can be accomplished without removing the shuttle from its carrier.

TO REGULATE THE TENSION—(Upper Thread).

Turn the tension thumb screw to the right until the thread seems to draw through with about the same tenacity as it did from the shuttle, for the purpose of making a stitch alike on both sides.

If the under thread lies straight or is not drawn sufficiently into the goods, turn the tension screw more to the right. If such is the case with the upper thread, turn to the left, or increase shuttle tension.

Soft and thin goods require but little tension, but on thick and heavy goods the tension should be heavier.

NOTE.—Too little tension will make looped stitches.

Proper adjustment of the tension is one of the most important requisites for neat stitching.

Loop stitches sometimes occur from using needles too fine for the thread; but generally from the thread feeding off too freely, which is corrected by increasing the tension. If the upper thread loops, increase the upper tension; if the lower, increase the shuttle tension.

If you have too much tension on both threads, it will be shown by the constant breaking of the upper thread or the gathering of the work.

If you wish to sew with a view to ravel easily, leave the upper tension so light that the under thread will not be drawn into the goods, but lie straight.

For sewing flannel or "bias" seams, use a fine stitch and as light a tension as possible, so as to leave the thread loose enough to stand the strain of stretching the goods.

TO GET REQUIRED LENGTH OF STITCH.

On the bed in front of the upright arm will be found the stitch index. Unfasten the thumb screw (See R., Fig. 5, Page 10) by turning it slightly to the left, then slide it to the right for longer, and to the left for a shorter stitch, turning the thumb screw up firm, so it will not jar loose while operating the machine.

The stitch index is marked with figures corresponding with the number of stitches to the inch the machine will make when the thumb screw is set opposite.

NEEDLES AND THREAD.

It is highly important that you should use the best quality of needles and thread, then you will insure the satisfactory working of the machine. Cheap needles and thread are dear at any price.

We would request our customers to buy their needles from us, then they will get the best. Select the thread to suit the goods, then a needle suited to both thread and goods.

Number 4 and 5 needles are used for all ordinary family sewing. Ordinarily use the same sized thread above and below. A larger size can be used in the shuttle if preferred.

Machine sewing does not require so large a thread as hand sewing. It is not necessary to use a coarser cotton than number 40.

In sewing heavy thick goods increase the pressure of the presser foot, and do not use a larger needle than the thread you have picked out requires. If the needle is unnecessarily large, or is dull, it will be difficult to force the point into goods of a close, firm texture.

Be certain that the needle you are using is always perfectly straight, and if you have any doubts about it, change it for another one. The machine is adjusted so that the needle *does not pass directly through the center of the needle hole*, but instead, it goes a little to the right of the center, the object being to have the edge of the needle plate act as a guide to prevent the needle from being bent or drawn out into the shuttle race and struck by the shuttle. The needles have flattened shanks, and the amount of flattening varies so that whether a fine or a coarse needle is used, the blade of the needle always occupies the same position with relation to the needle hole and shuttle.

Cotton.	Silk.	Needles.	
300 to 500	0000	1	For the very finest work.
120 to 200	000	2	For the finest work that ordinarily occurs.
90 to 110	00	3	For fine underclothing, etc.
70 to 80	O&A	4	For common underclothing, calico, etc.
40 to 60	B	5	For unbleached cotton or linen fabrics, etc.
12 to 36	C	6	For heavy work.
0 to 10	D&E	7	For very heavy work.
		8	The coarsest soft goods.

For the convenience of the operator we have stamped on the front shuttle slide a scale for selecting thread and needles, which we trust will frequently be referred to.

TO REMOVE THE WORK.

Allow the needle to rest at its highest point, raise the presser foot and with the right hand press down the tension liberator which is formed by an extension of the lower tension spring on the arm. This releases the tension on the upper thread, and with the left hand draw the goods from the left side backward and bring both threads over from the back between the discs of the thread cutter, so they will be drawn across the little knife and cut. The thread cutter is illustrated on page 24.

THE BELT.

The machine works the best with as loose a belt as will serve to wind the bobbin. If too loose, disconnect the coupling and cut off from one end say half an inch.

To run on the belt after it has been taken off the pulley wheels to be shortened, or to allow the head to turn back for oiling or cleaning, it is only necessary to lay the belt in the groove of the hand wheel, and then turn the drive wheel of the stand towards you and draw the belt across the inside edge of the pulley rim on which there is a little finger or projection that acts as a belt replacer. As the wheel revolves toward you this finger will catch the belt and run it into its proper place in the groove.

SKIPPED STITCHES.

These are sometimes caused by the needle being too small for the thread, or not being set up as high in the bar as it will go. Also by the needle being bent, or by dirt or lint collecting in the groove cut for the needle in the face of the shuttle race.

BREAKING THE UPPER THREAD.

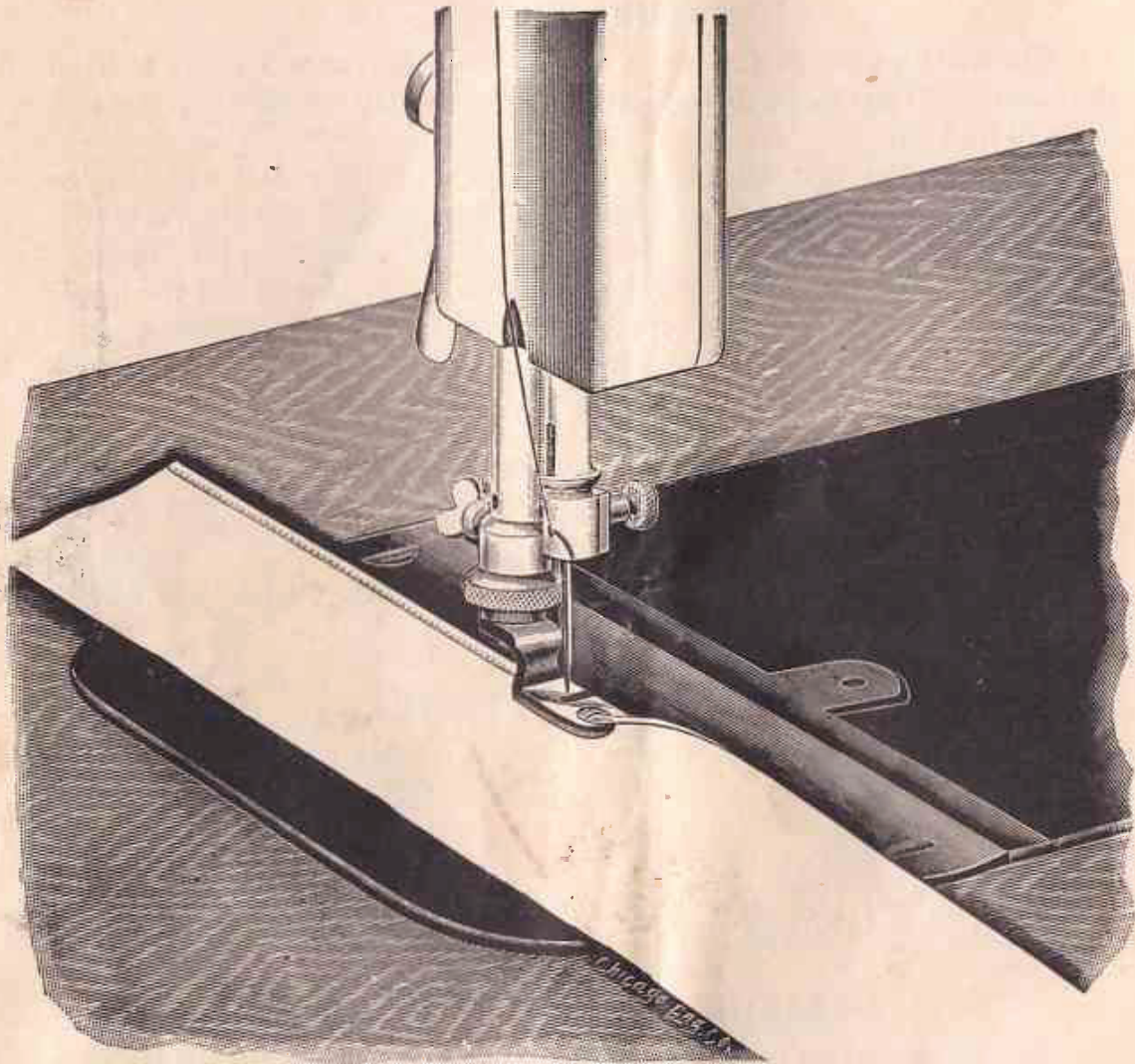
May be caused by the needle not being properly set, the machine not threaded correctly, the upper tension too tight, the thread uneven and the needle too small for it, the eye of the needle being too sharp, the presser foot attached to the machine so that the needle rubs against it, or by a sharp place or burr being formed on the needle plate around the needle hole, by needles being allowed to strike it.

BREAKING THE LOWER THREAD.

May be caused by having too much tension in the shuttle, by the bobbin being wound too full so that the thread at the ends slip over the bobbin in the shuttle, or by the thread being caught in the slide plates. Accordingly the latter should always be kept tightly closed when operating the machine. The bobbin should never be wound so full as to prevent its turning freely in the shuttle.

TO REGULATE THE FEED.

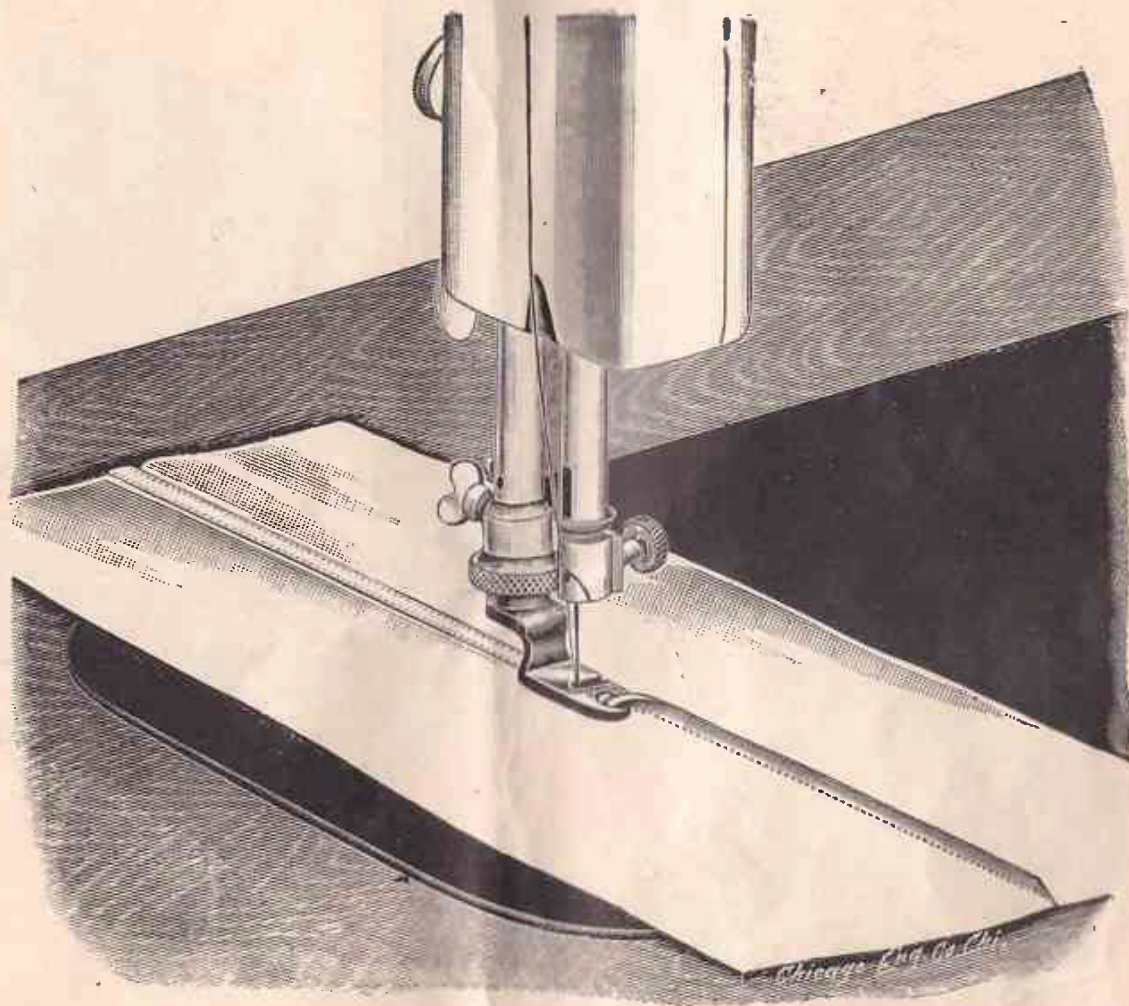
For ordinary work, the feed requires no change and should remain as when received. In sewing very thick and soft spongy goods it may be necessary to raise it a little. This is done very easily with this machine by loosening the little set screw in feed vertical lever adjustment marked F on cut showing the working parts of the sewing machine on Page 4, and sliding down a trifle, the piece thus loosened, with the effect of lowering one end of the horizontal lever, which of course raises the other, and with it the feed. This method of adjustment prevents the feed getting out of level.



NARROW HEMMING.

Remove the presser foot and insert in its place the foot hemmer. Raise the presser bar lifter to the right, clip off the right hand corner of the cloth and turn up the edge about one-quarter of an inch, so as to enable it to pass easily into the scroll of the hemmer, push it forward to the needle, let the hemmer down and start the machine, gently holding back on the work to keep it smooth, and allowing the edge of the goods to pass between the thumb and forefinger of the right hand while it is being hemmed, keeping the goods rolled up on the edge as it passes into the hemmer. The latter should be kept just full. If too much cloth passes in it will make a rough and clumsy hem, or the goods will be crowded out of the hemmer. If too little the raw edge will not be turned in.

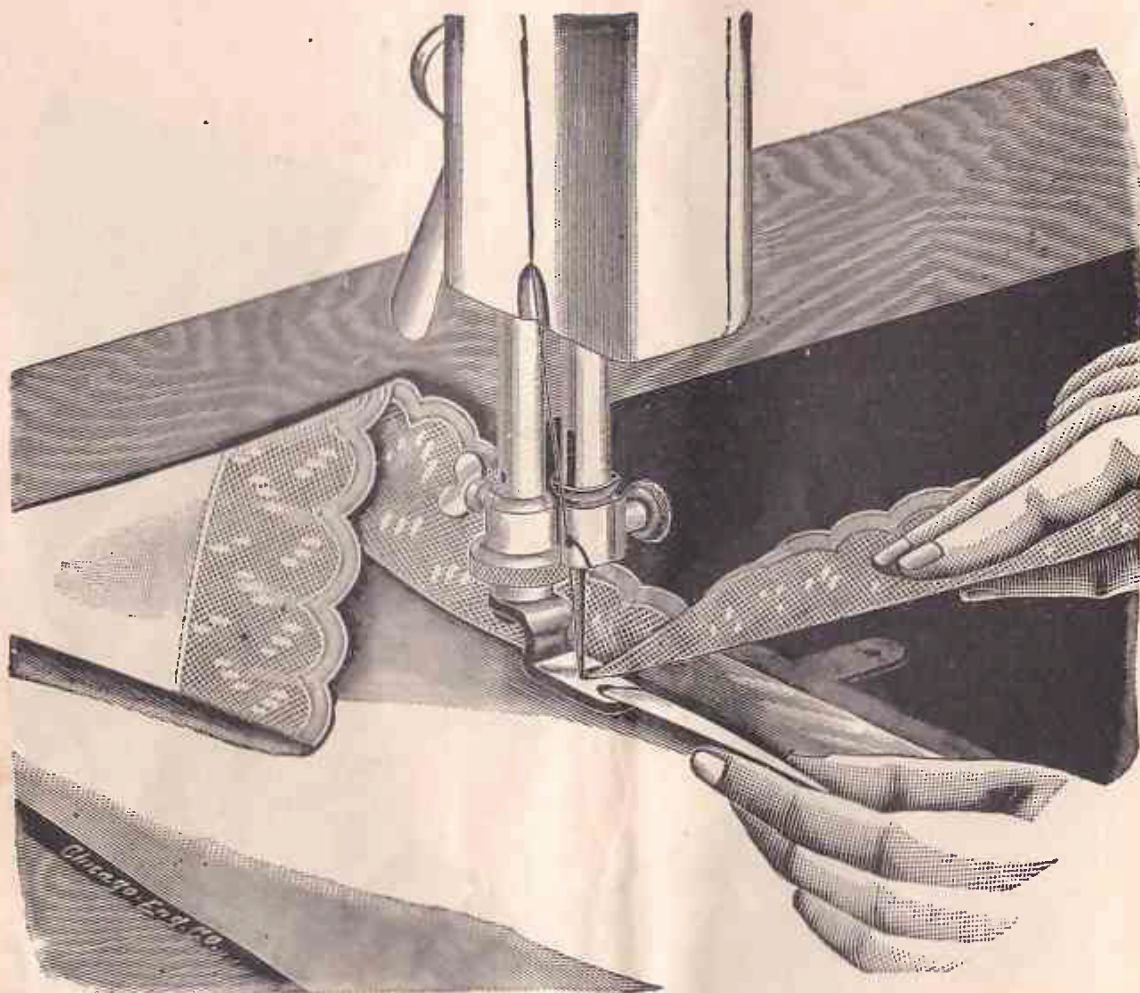
In hemming a curve on flannel or very elastic goods, draw gently on the edge being hemmed, resisting the feed slightly, and guide the work carefully. The stitch may be made close to the edge, or away from it by loosening the screw at back of the attachment holder and turning it to the right or left.



FELLING.

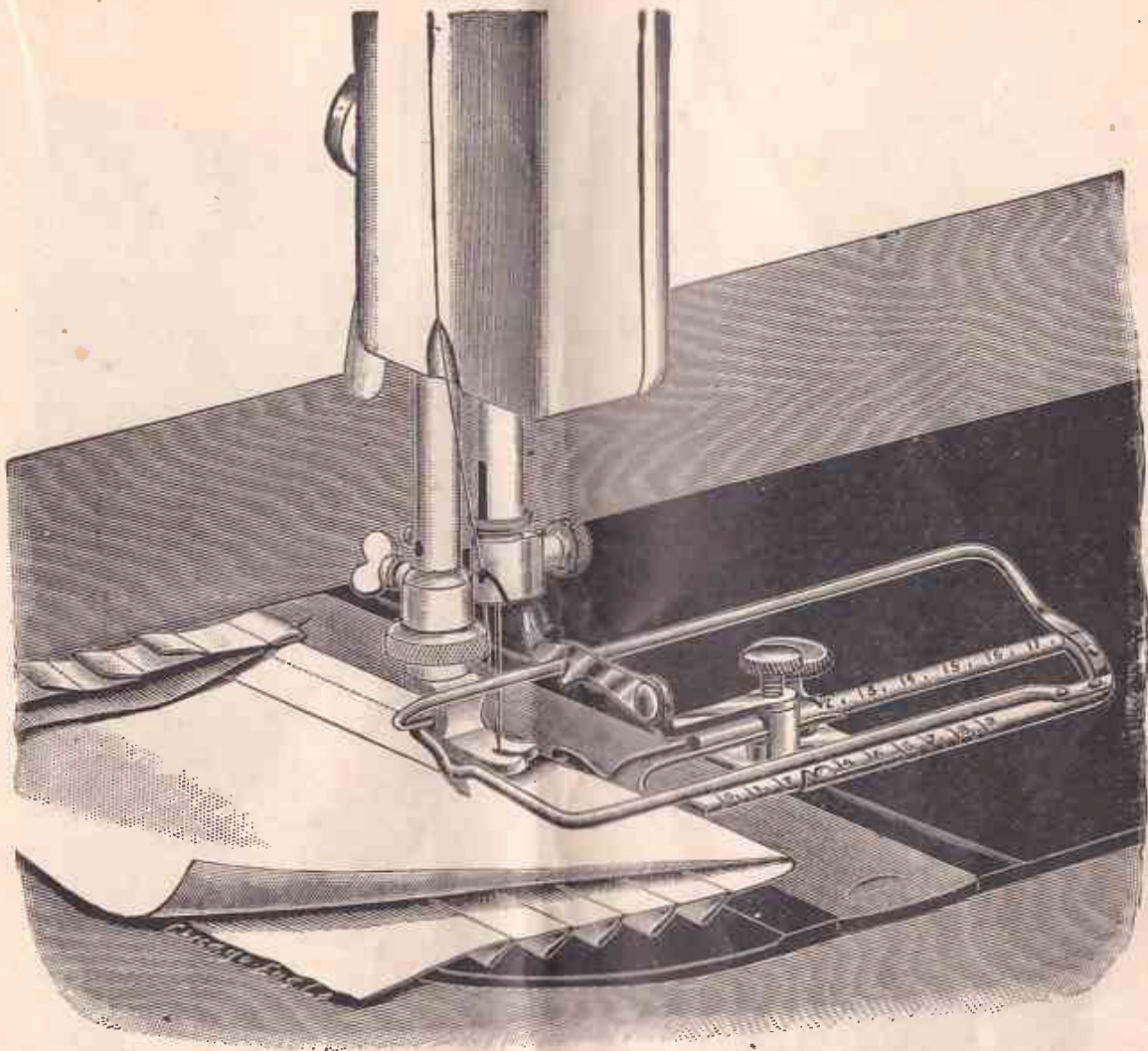
The hemmer and feller are the same. If the hemmer is attached it can be used in place of the presser foot in running up a seam. Sew together two pieces of cloth with the under edge projecting between one-eighth to one-quarter of an inch beyond the upper edge, then trim the edges if necessary, leaving enough goods between the row of stitching and the edges to fill the hemmer and turn in nicely, open the work flat, wrong-side up, and trim the corner of the same slightly, then push the goods into the feller until the needle is reached. Lower the feller on the feed and start the machine. The feed will carry the seam through without assistance, making a complete fell from the beginning. There is no necessity of touching the goods at all, but it is just as well to keep them smoothed out nice and flat.

The positive double feed makes its variety of work a special feature of the machine.



HEMMING AND SEWING ON LACE. — (One Operation.)

The hemmer and feller which accompany this machine is made with a slot for the needle to pass through instead of a round hole as in most of the attachments. This slot is to enable the operator to make a hem and sew on lace at the same time. Proceed as follows: First start a narrow hem, and when the goods are well under control and passing smoothly into the hemmer, stop the machine, raise the hemmer with the presser bar lifter to medium lift, raise the needle to its highest point, and then carefully pass the end of the lace through the slot in the side of the hemmer, carrying it under the back of the hemmer and on top of the hem. Then proceed as in ordinary hemming. Guide the lace over the front of the hemmer, keeping it well in the slot so that the needle will catch it every time it passes into the goods.

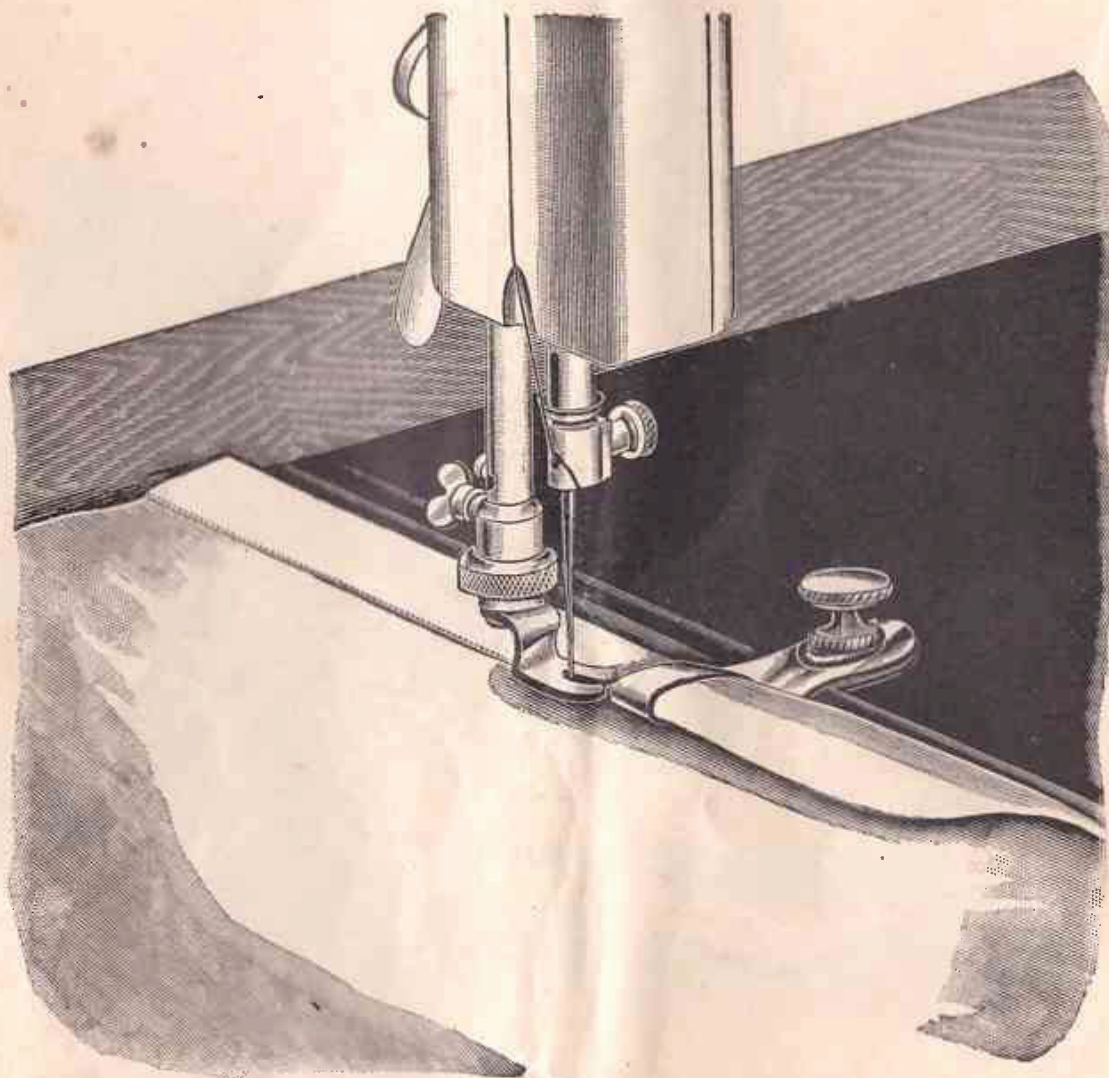


TUCKING.

Fasten the tucker to the bed of the machine firmly by means of the thumb screw, and be sure that the neck of the needle clamp will strike in the hollow portion of the tucker lever nearest the end.

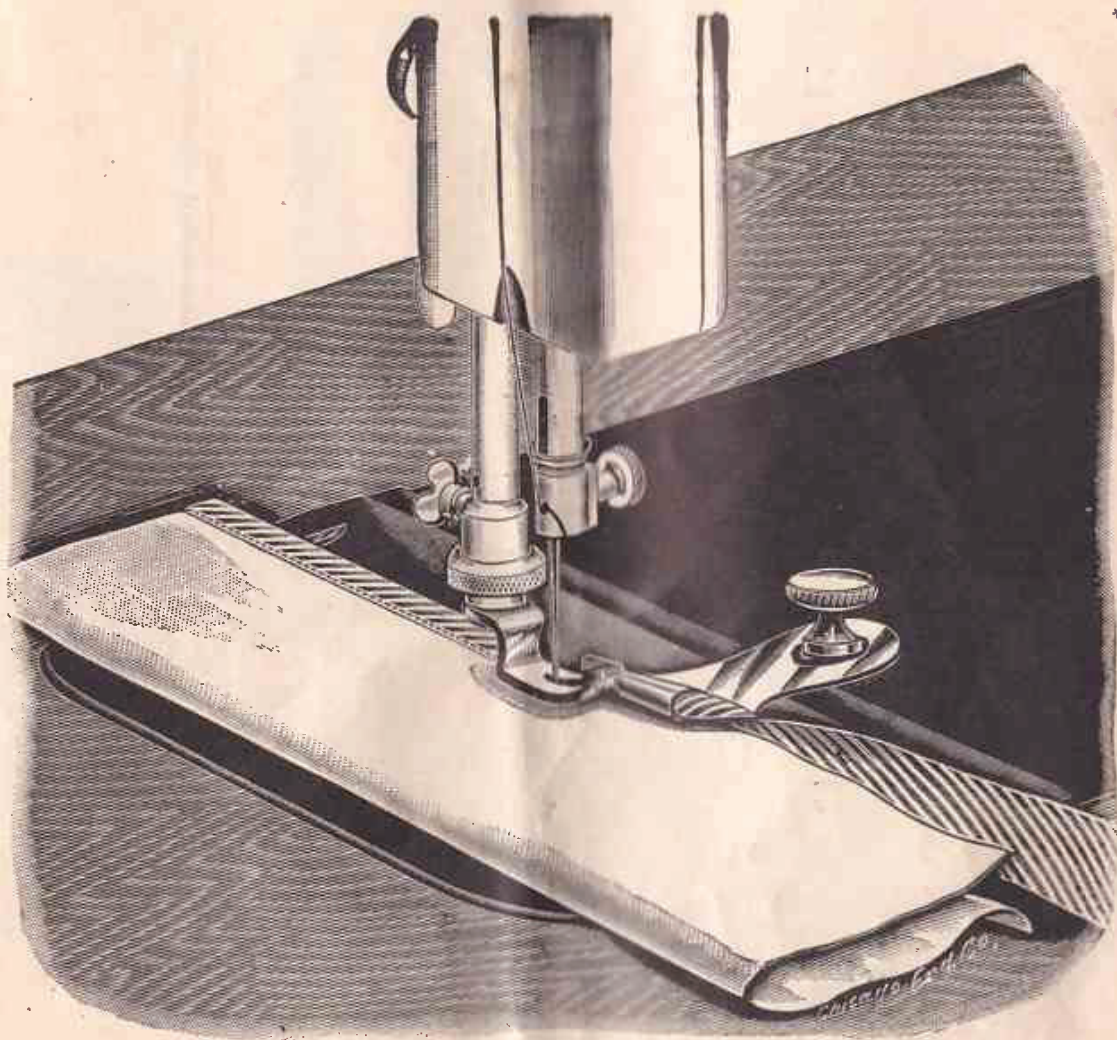
Setting the tucker gauge and tucker plate at corresponding figures will give tucks without any space between them. Example: By setting the gauge and plate at Fig. 2 will give you tucks one-quarter of an inch wide without any space between. If space is required, for a one-quarter-inch tuck loosen the adjusting screw of the tucker, retaining the gauge in its position, and move the tucker plate as far to the left as the space desired.

Fold the cloth for the first tuck, and place it under the creaser bar and presser foot, with the folded edge against the guide. The creaser marks the cloth as it passes over the creaser blade; after the first tuck is completed fold the cloth by the mark made by the creaser and place again as before.



WIDE HEMMING.

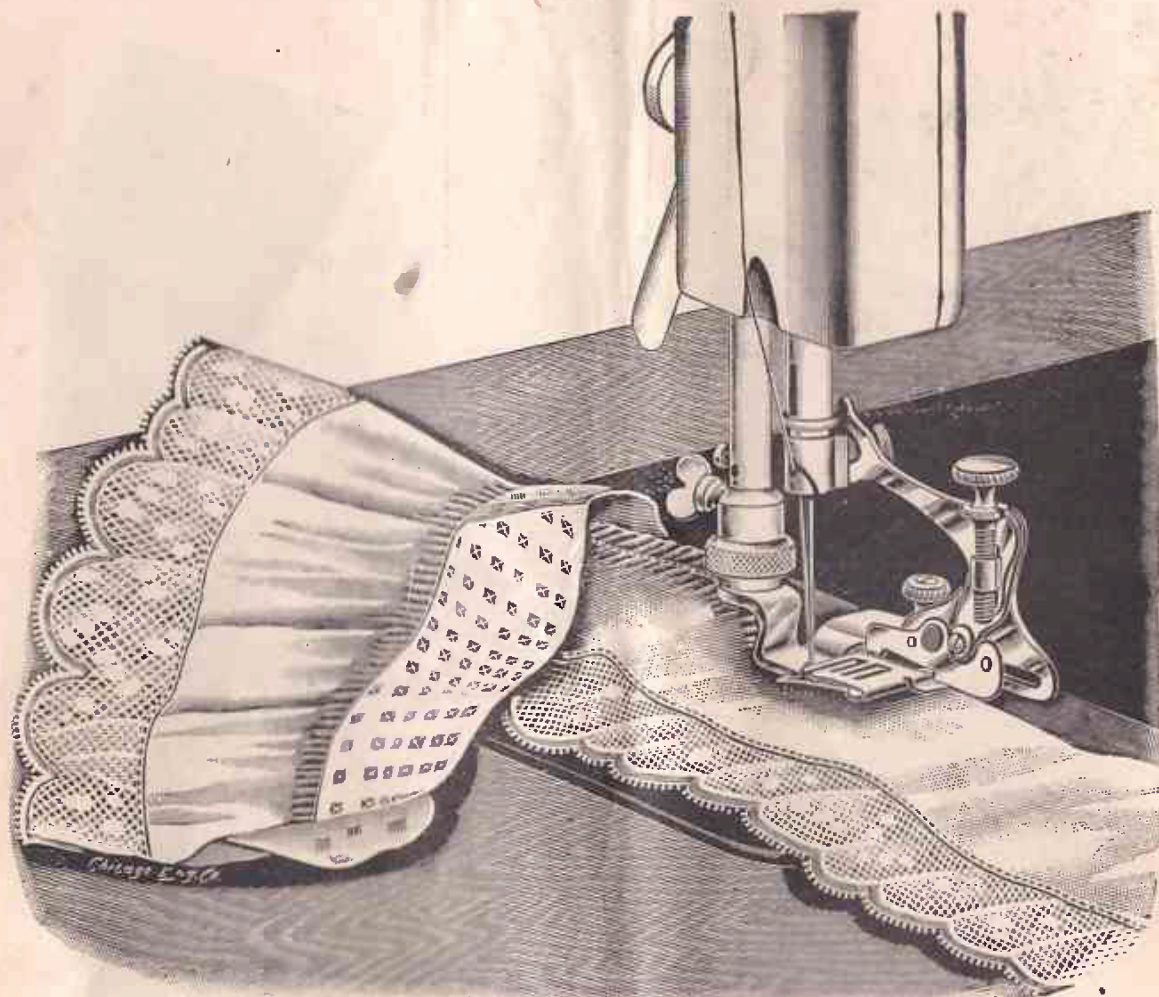
With each machine is furnished four plate hemmers of assorted widths. They are called plate hemmers because they are fastened to the bed plate of the machine with the thumb or guide screw. Select the width of hemmer you desire to use, and attach it to the machine as shown above. You will readily see that it can be adjusted to the right or the left a little, so as to stitch as close to the edge as desired. Take the cloth in both hands, the right hand in front of the hemmer and the left behind. Insert the edge of the goods in the scroll of the hemmer and draw it back and forth a few times while gradually feeding the cloth into the hemmer, so as to fill the scroll completely. When you have the hemmer full, draw the cloth back toward you to start the hem near the end. Let down the presser foot and proceed as in narrow hemming.



BINDING.

The plate binder resembles the plate hemmers, except that it has a double scroll. First, be certain that it is firmly secured to the bed of the machine by means of the thumb screw, and if possible, always use binding cut on the bias seven-eighths of an inch wide. For straight binding it is not necessary to have the material cut on the bias, but for appearance sake the latter is preferable. The material to be bound is placed between the folds or scrolls of the binder, and the operator has only to keep the edge of the goods well inside the scrolls, and the binding, so it will feed without twisting.

IN BINDING SCALLOPS, after binding around the curve of the scallop, stop the machine with the needle in the goods, and then fold the elbow or the angle of the following scallop so as to form as nearly as possible a straight line, and then continue the binding, being particular to hold the goods being bound a little firmer than the binding, which will prevent its being drawn.



RUFFLING OR GATHERING.

The ruffler is fastened to the presser bar in the same manner as the ordinary sewing foot, and is mainly composed of a frame or foot part, lever, blade carrier or crimper slide, and separator plate, the latter being fastened to the frame of the ruffler by the little thumb screw seen in the illustration underneath and on the right hand side of the lever.

For plain or single ruffling, insert the cloth to be ruffled between the blades and into the gauge seen on the blade carrier or crimper slide.

If full gathers are desired, turn the adjusting screw to the left, or to the right for scant gathers. For the latter it is always best to have the feed regulator set so as to give a very short stitch.

For ruffling on a band, insert the band in the ruffle gauge and under the separator blade next to the feed, and place the cloth for the ruffle the same as for a single ruffle. This work is illustrated above.

RUFFLING BETWEEN BANDS, AS FOR MAKING APRONS.

Place the lower band in the ruffler, having the right side of the goods up, place the apron into the ruffler gauge, then place the top band over or on top of the ruffler gauge and under the ruffler foot. This operation will blind stitch the band on each side of the apron.

If you desire to edge stitch the band on each side, it is necessary to use the shirring plate for the lower band and run the apron through the ruffler from the right side or under the arm of the machine, then place the top band with the edge folded, through the gauge shown on the ruffler nearest to the needle. For this work it is desirable to have the feed or stitch set at Figure 12.

RUFFLING AND SEWING IN PIPING.

It is most convenient to do this work from the upper side, although it can be done from the lower also by using the shirring plate. Place the goods for the ruffle into the ruffler the same as for plain ruffling, then insert the piping into the gauge nearest the ruffle gauge, drawing it through under the foot, insert the folded edge of the band into the gauge nearest the needle, drawing it also under the foot. You will notice that the band and piping gauge is made adjustable to the right or left, so you may stitch as close to the edge as desired.

REMARKS.

Should the crimping blade need to be sharpened, *never* file or grind it from the bottom side, but always from the top. It should be filed or stoned on an angle, like the edge of a chisel.

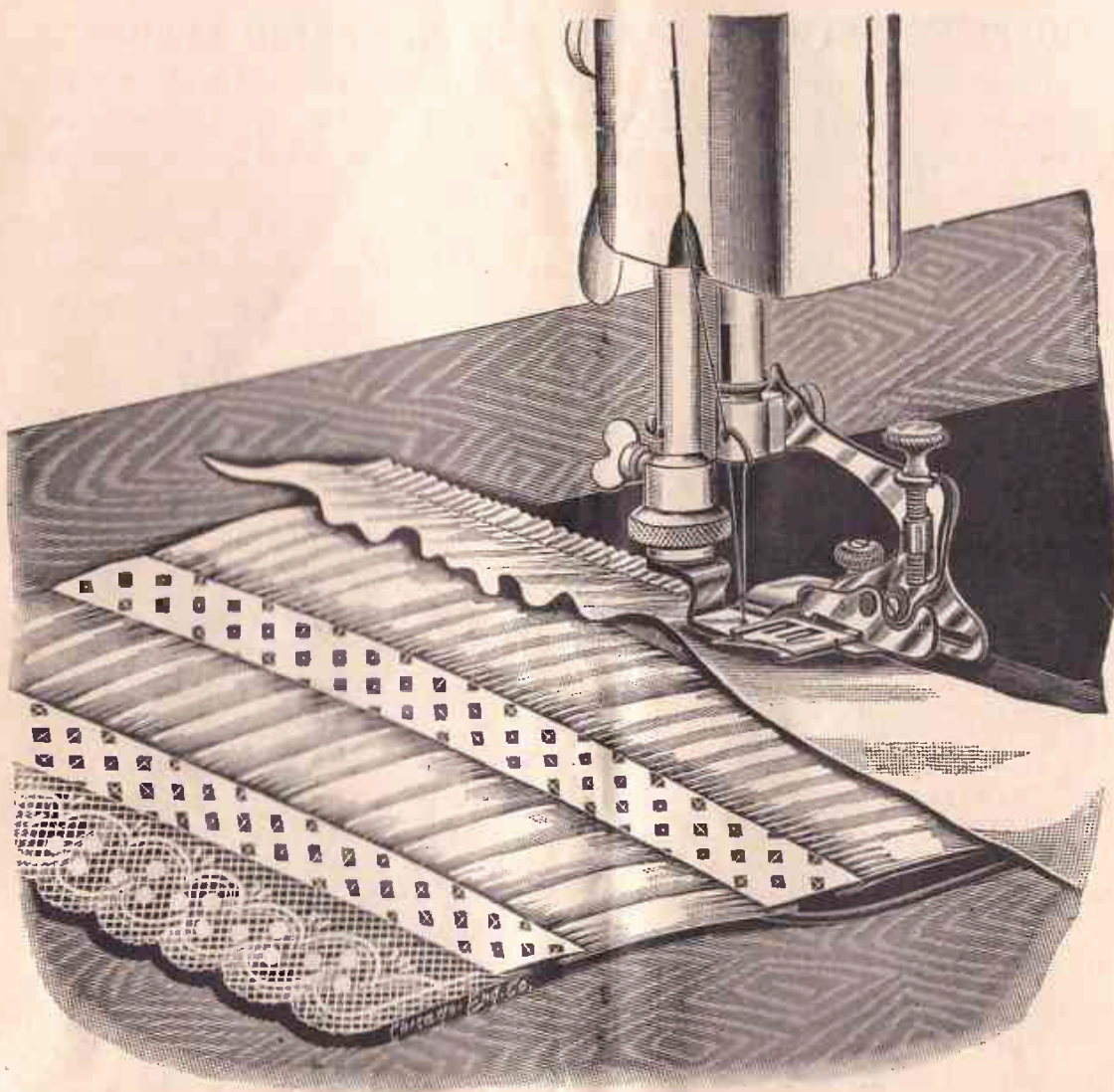
The best work can be done when the crimping blade carries the cloth just beyond the needle, as each crimp or pleat is formed.

If, after long use, adjustment becomes necessary, loosen the little screw which holds the cam or eccentric on the lower end of the ruffler lever and turn the cam forward a little.

Oil is only necessary in the two oblong slots in which the crimping slide moves.

HEMSTITCHING.

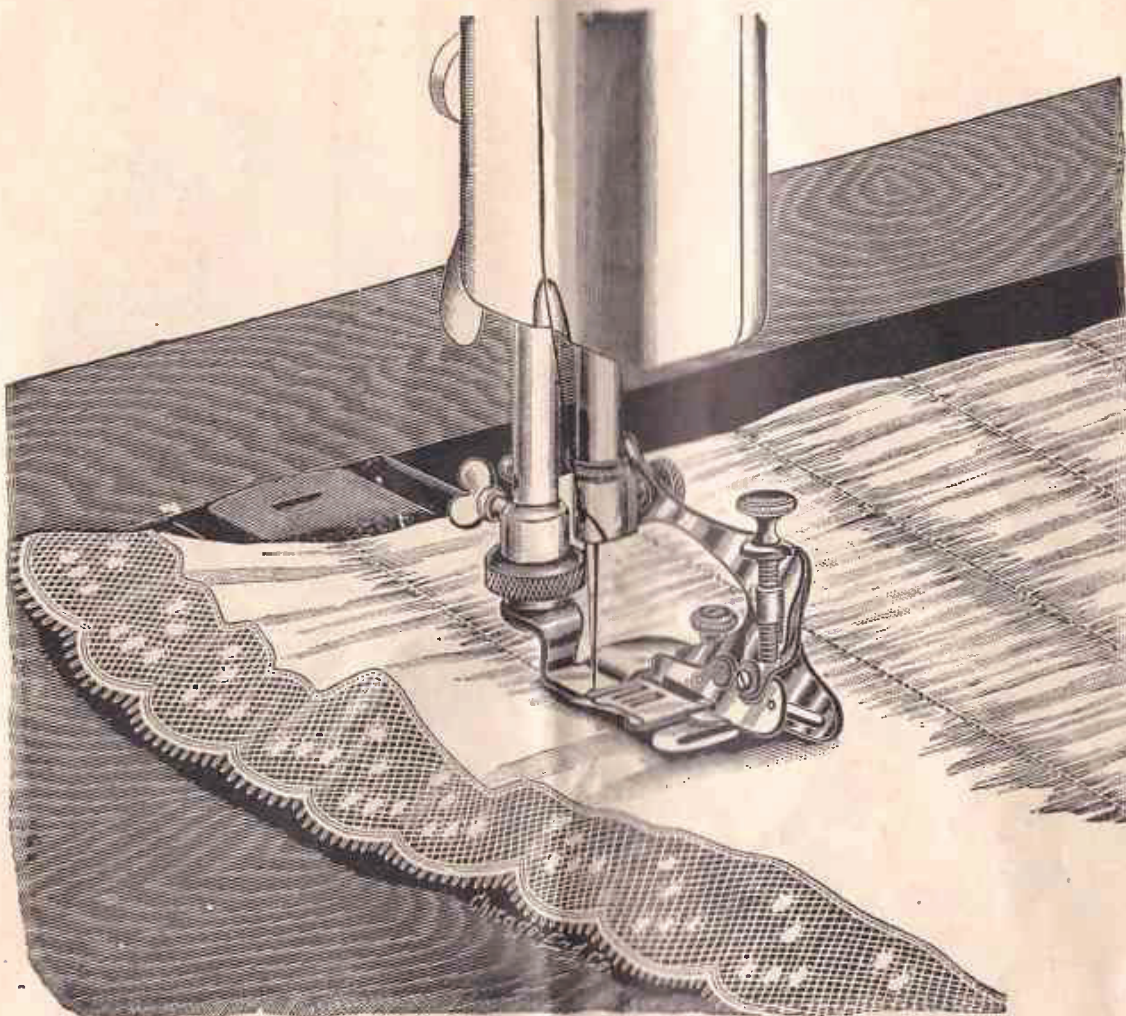
Fold blotting paper (or other soft paper), which can be readily torn, until you get thickness corresponding to the opening desired in the hemstitching; put one of the pieces of goods under the paper and the other above, then place all under the presser foot and sew through them. After being sewed, both pieces will be doubled back and forth, to crease them well exactly on the line of stitches. Then fold all four edges in the same direction, and hold firmly while you tear out the paper. Remove the other half of the paper and open the hemstitching one edge of each, or either piece may be cut and passed through the hemmer, or a row of stitching can be passed alongside the hemstitch and the double edge finished off as you choose.



PUFFING.

To make puffing insert the band into the gauge or slot in the separator plate below the crimper blade, and the cloth to be puffed between the blades the same as for a single ruffle and gather one side. Then reverse the puffing commencing at the opposite end and let it run through a second time. This stitches the band on both sides the ruffle, making a handsome piece of puffing, as shown above. Continue until you have the number of puffs required.

FOR SCALLOPING it requires muslin cut lengthwise of the cloth one inch wide, then folded or doubled, leaving a strip just one-half inch in width. Insert the cloth or band you wish to sew the scalloping on, the same as for puffing. Set the index so as to give a long stitch, and adjust the ruffler very full so as to form pleats. Then swing the strip from side to side, keeping time with the machine as the scalloping is made. About eight or nine pleats to each scallop makes a nice size.

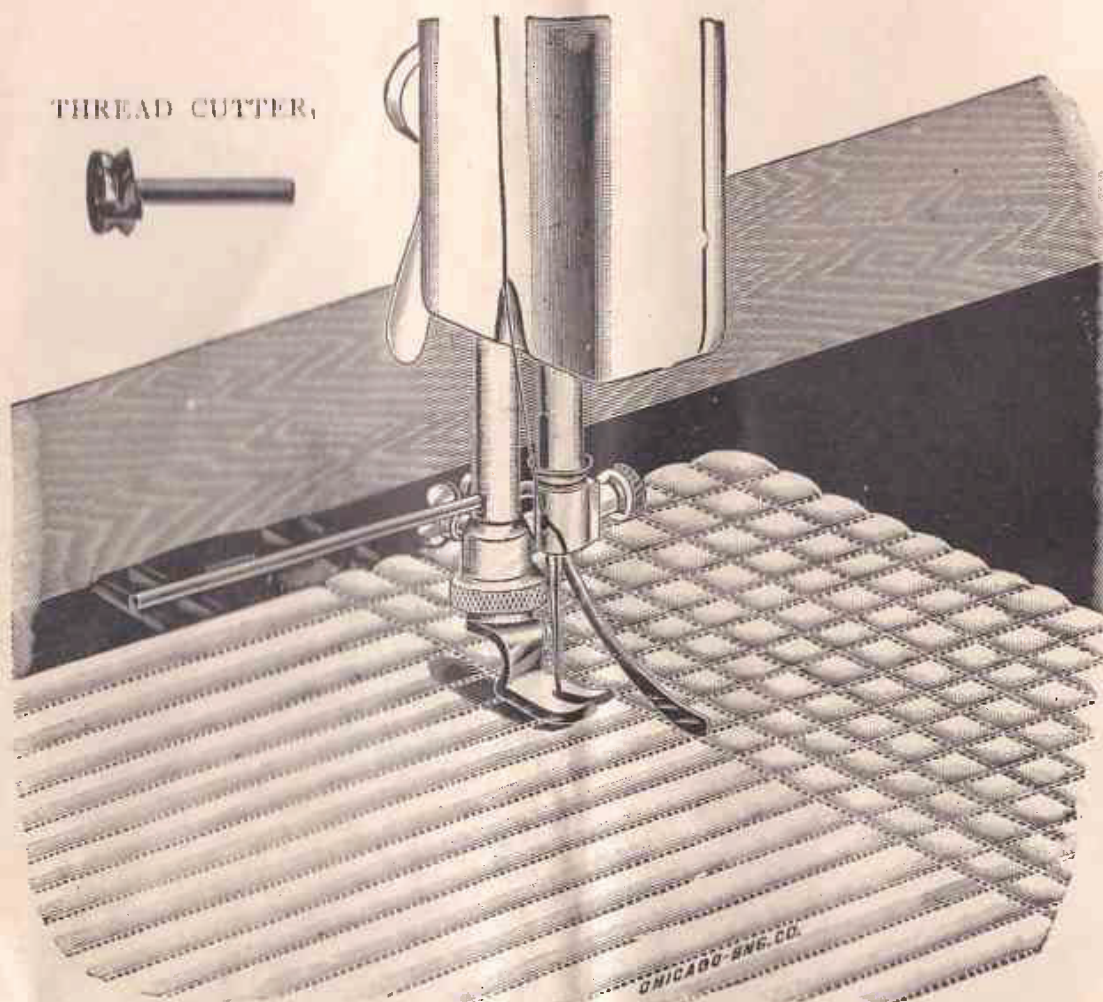


SHIRRING.

To do this kind of work, first loosen the separator post screw, removing the separator frame and blade from the ruffler, and supply in its place the shirring slide, which is that piece in the attachment set that fits into the machine in place of the front slide plate. The shirring plate has a gauge on it which takes the place of the separator blade. The object of having the shirring slide is to do away with all side obstructions so that the operator can gather in the middle of a wide piece of goods instead of on one edge only.

In shirring, it is always best to run a small tape underneath the goods to be shirred, the same as you would a band in ordinary ruffling. This forms a stay and greatly strengthens the work.

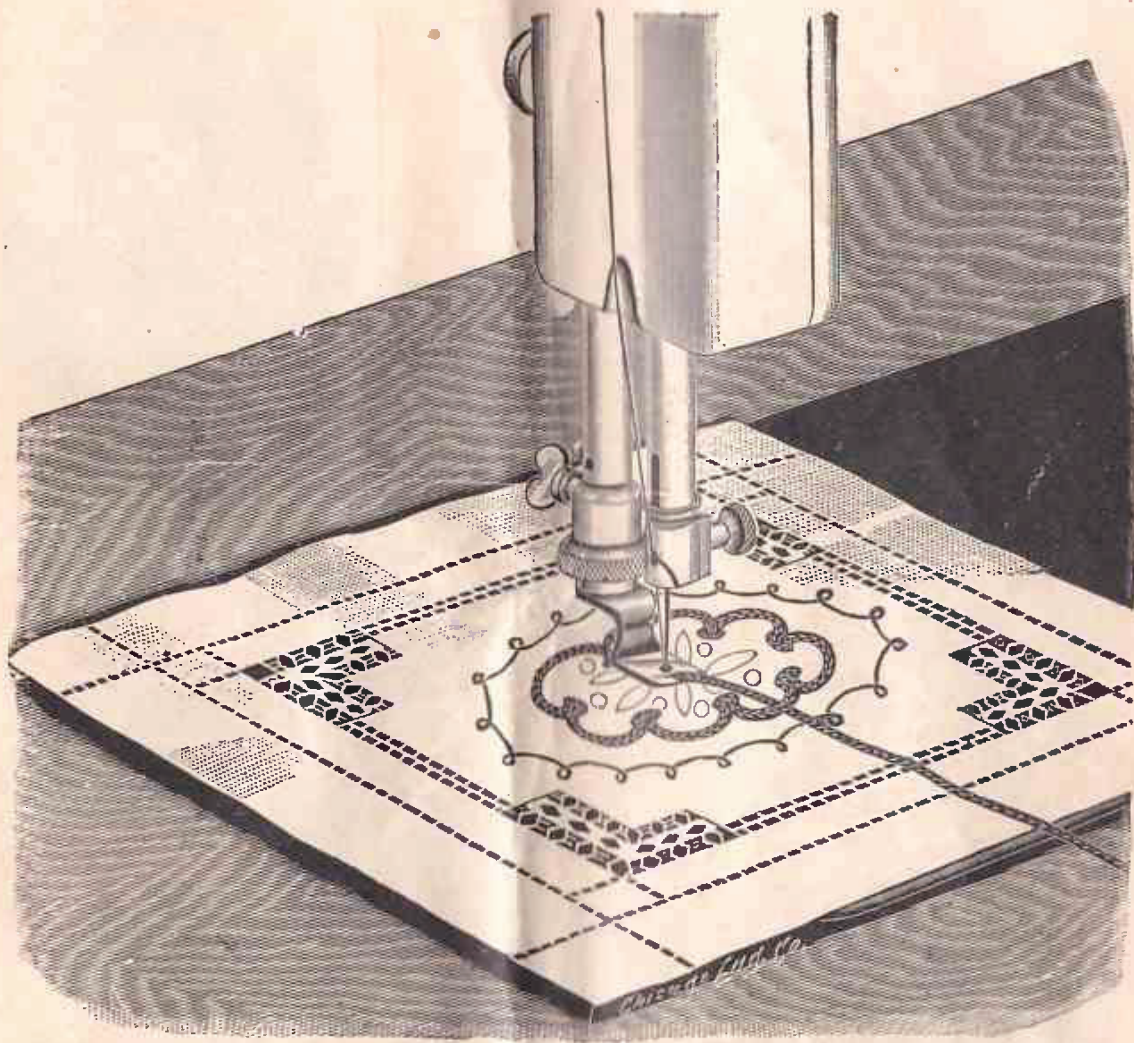
The tape is run through one of the gauges in the slide and requires no attention.



QUILTING.

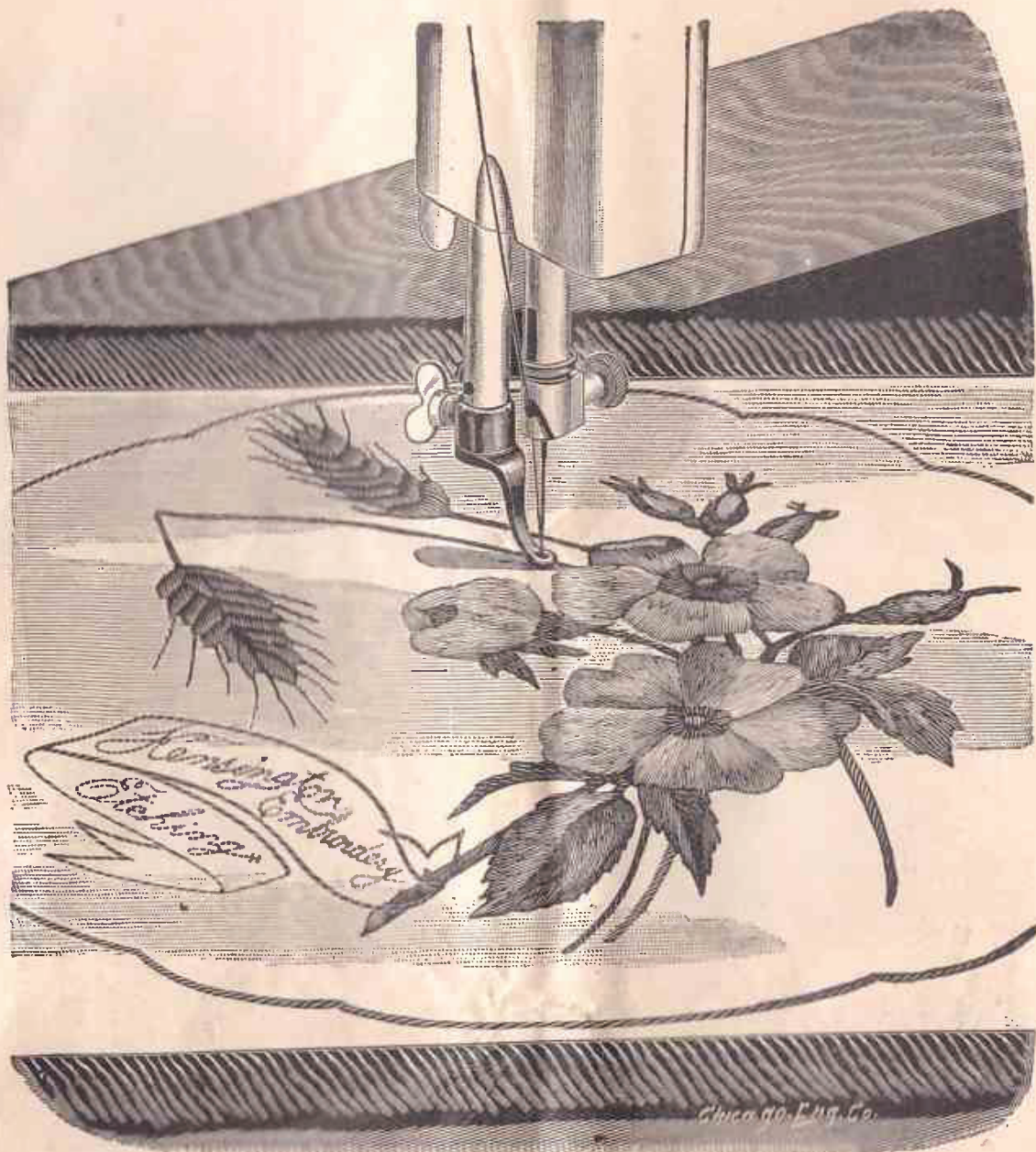
Insert the quilter through the small hole in the lower end of presser bar with the indicator or flat end to the right. Fasten it firmly with the small set screw in the bar, leaving the flat end high enough so the goods will pass under freely. Having made the first row of stitching the desired distance from the edge, place the work so that this row will be under and in line with the lower edge of the quilter, which will form a guide for each row of stitching.

NOTE.—That the thread cutter is also illustrated above. This is fastened to the machine the same as the quilter, with the discs on the left side of the presser bar, and the little knife, with its edge uppermost but turned a little away from the operator, so that the threads can be drawn from the back forward and cut on it. The threads are cut and the machine ends automatically retained, thus preventing the needle thread from snapping back and the needle becoming unthreaded, a frequent source of annoyance with other cutters. When the machine starts again the motion of the feed will release the threads.



BRAIDING.

Attach the braider to the holder on the presser bar instead of the regular sewing foot. To put the braid into the braider, first raise it with the presser-bar lifter and pass the end of the braid through the slot or hole in the front of the braider, and see that the braid passes through flat and without twisting. Draw it through and pass it under the foot back of the needle then place stamped pattern under the foot and proceed to sew, guiding the cloth with the right hand and holding the braid with the left to keep it from twisting. Or, the braid can be thrown over the arm of the machine and the cloth guided with both hands, a little of the braid being pulled down every few moments, as required.



ETCHING AND KENSINGTON EMBROIDERY.

(An extra attachment, price 75c.)

The attachment consists of a special foot and an extra slide plate, with a guard which fits over the teeth of the feed and prevents them from reaching the work. The goods being fastened to a suitable hoop, the operator moves them in the direction necessary to follow out the pattern. For embroidery the special foot is not required, but for writing or etching it should be used. Complete instructions are furnished with each attachment.

PRICE LIST.

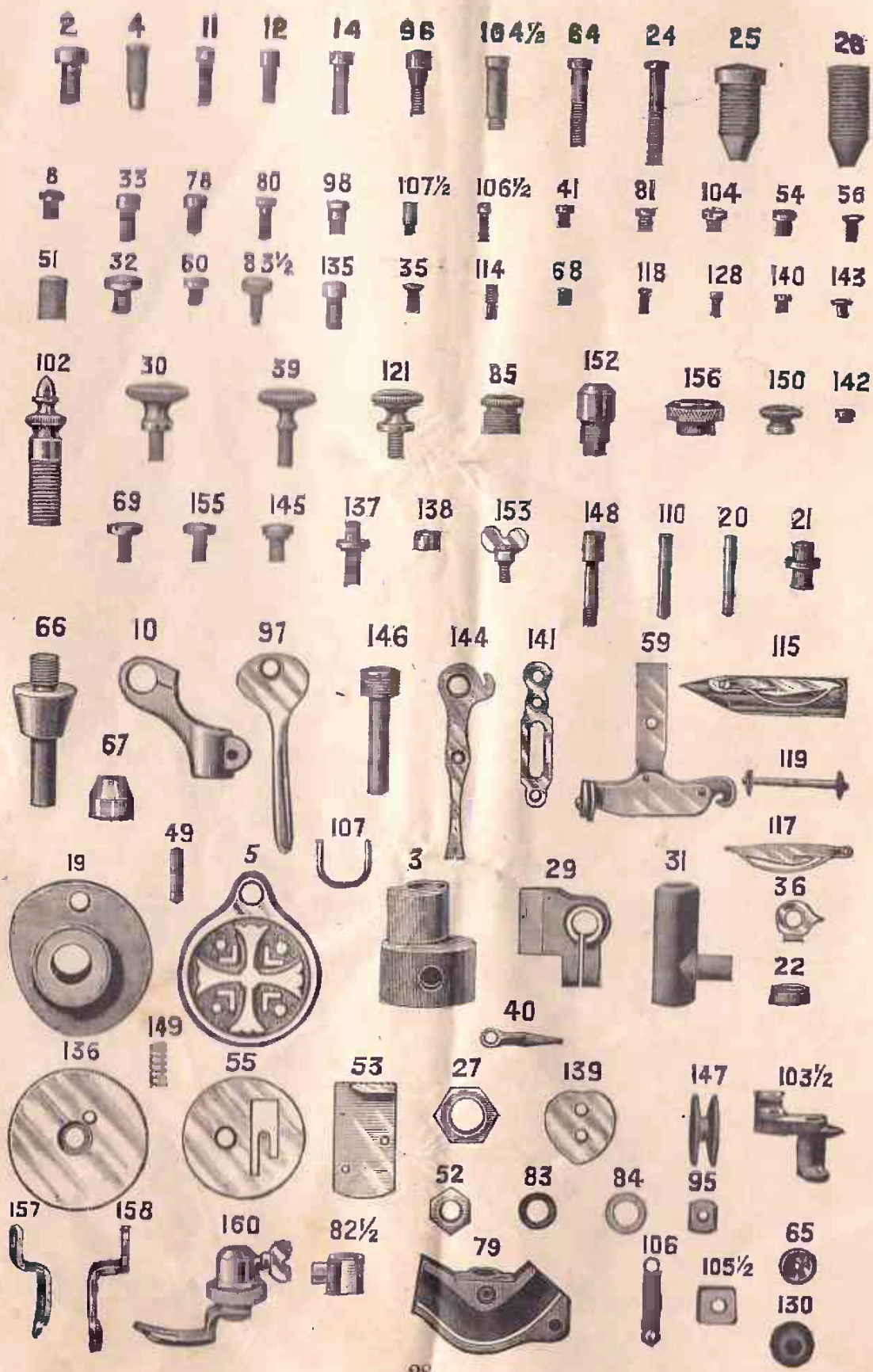
Ruffler,	\$1.00
Tucker,	.50
Hemmer Sets, including Binder,	.50
Braider Foot,	.15
Corder,	.50
Thread Cutter,	.05
Shirring Plate,	.15
Hemmer and Feller,	.30
Presser Foot,	.15
Shuttle,	.75
Needles, all sizes, per dozen,	.30
Guide Thumb Screw,	.10
Oil Can,	.10
Bobbins, each,	.02
Wrench,	.10
Screw Driver,	.10
Shuttle Screw Driver,	.05
Quilter,	.04

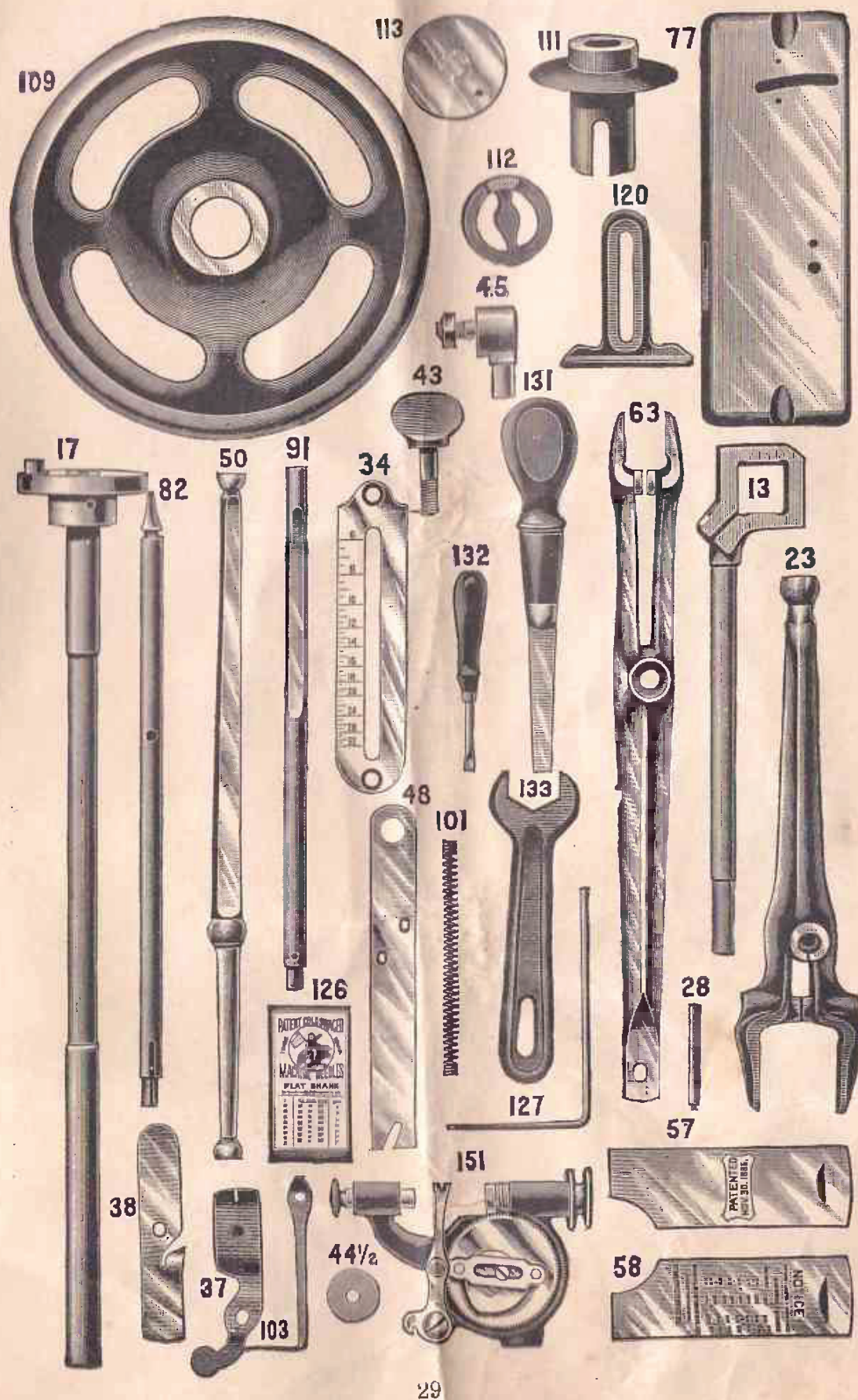
This machine is supplied with a certificate of warranty, properly dated and signed, good for five years from date and covering the breakage of parts that prove defective in any way. The warranty does not include attachments.

Remember that every machine before leaving the factory is thoroughly tested on all kinds of work and that it **MUST BE RIGHT WHEN RECEIVED.** Should there be anything about the machine which you do not understand, correspond or communicate with the manufacturer or your dealer before condemning it.

Never under any circumstances use needles except those that are made expressly for this machine. We cannot guarantee a perfect working machine unless genuine needles are used. If the needle is a trifle too long or too short, has the eye a little further from or nearer to the point of the needle than it should be, or is not properly flattened on the shank, it will not allow the machine to do good work. So-called "cheap" needles are dear at any price.

Always speak a good word for your machine **whenever** and **wherever** you can.





ILLUSTRATED PRICE LIST

... OF ...

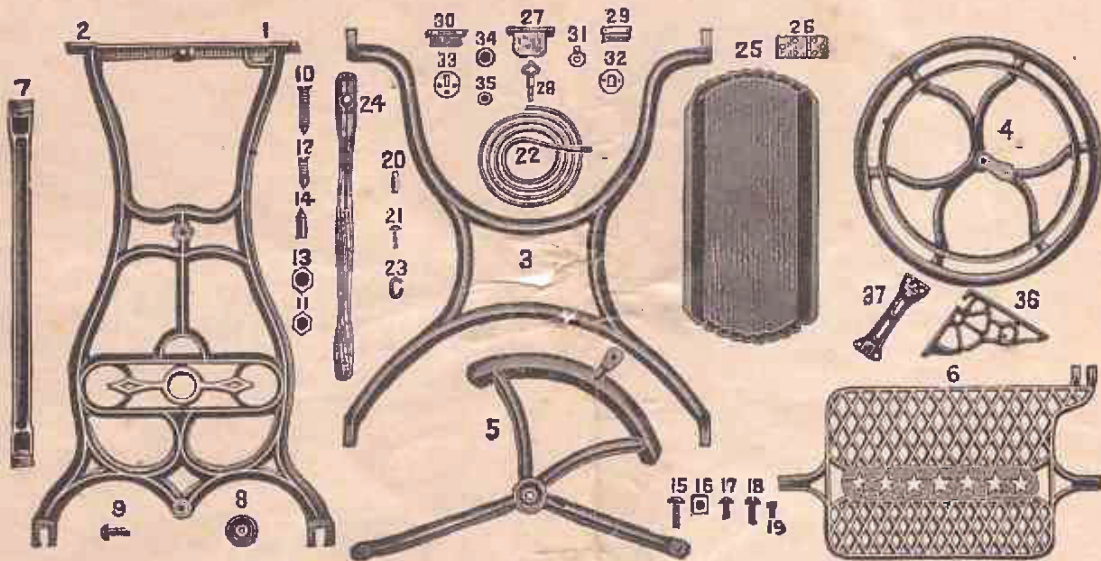
MACHINE PARTS.

No.	NAME	PRICE	No.	NAME	PRICE
1	Arm Post, (not illustrated).....	\$ 3.00	81	Cross Head Adjusting Screw.....	.02
2	Arm Post Screw.....	.02	82	Needle Bar.....	.50
3	Eccentric.....	.40	82½	Needle Clamp.....	.12
4	Eccentric Set Screw.....	.02	83	Needle Bar Oil Cup.....	.02
5	Medallion, (complete).....	.15	83½	Needle Clamp Screw.....	.02
8	Medallion Screw.....	.02	84	Needle Bar Packing.....	.02
10	Feed Adjustment.....	.30	85	Needle Bar Bushing.....	.02
11	Feed Adjustment Screw.....	.02	91	Presser Bar.....	.25
12	Feed Adjustment Set Screw.....	.02	95	Presser Bar Gib.....	.04
13	Feed Vertical Lever.....	.60	96	Presser Bar Gib Screw.....	.02
14	Feed Vertical Lever Screw.....	.02	97	Presser Bar Lifter.....	.18
17	Main Shaft Complete.....	1.20	98	Presser Bar Lifter Screw.....	.02
18	Main Shaft, (without head, not illus- trated).....	.60	99	See No. 84 (Presser Bar Packing).....	.02
19	Main Shaft Head.....	.25	100	See No. 85 (Presser Bar Bushing).....	.02
20	Main Shaft Head Pin.....	.01	101	Presser Bar Spring.....	.08
21	Main Shaft Head Stud.....	.20	102	Presser Bar Thumb Screw.....	.15
22	Main Shaft Head Stud Bolt.....	.15	103	Take Up.....	.08
23	Shuttle Vertical Lever.....	.60	103½	Take Up Hub.....	.16
24	Shuttle Vertical Lever Screw.....	.02	104	Take Up Screw.....	.02
25	Shuttle Vertical Lever F'ler'm Screw with Head.....	.08	104½	Take Up Hub Screw.....	.02
26	Shuttle Vertical Lever F'ler'm Screw without Head.....	.08	105½	Take Up Friction Pad.....	.02
27	Shuttle Vertical Lever F'ler'm Screw Set Nut.....	.04	106	Take Up Spring.....	.02
28	Spool Pin.....	.01	106½	Take Up Spring Screw.....	.02
29	Stitch Regulating Slide Block.....	.30	107	Take Up Staple.....	.02
30	Stitch Regulating Slide Block Th'mb Screw.....	.08	107½	Take Up Friction Pad Screw.....	.02
31	Stitch Regulating Slide Block Swivel.....	.16	109	Fly Wheel.....	.50
32	Stitch Regulating Slide Block Swivel Screw.....	.02	110	Brake Collar Pin.....	.02
33	Stitch Regulating Slide Block Swivel Adjusting Screw.....	.02	111	Brake Collar.....	.30
34	Stitch Regulating Index.....	.10	112	Brake Washer.....	.02
35	Stitch Regulating Index Screw.....	.02	3	Brake Button.....	.14
36	Stitch Regulating Indicator.....	.02	114	Brake Button Screw.....	.02
37	Tension Leaf.....	.10	115	Shuttle Complete.....	.75
38	Tension Spring.....	.12	117	Shuttle Spring.....	.08
39	Tension Thumb Screw.....	.10	118	Shuttle Spring Screw.....	.02
40	Thread Guide.....	.02	119	Bobbin.....	.02
41	Thread Guide Screw.....	.02	120	Guide.....	.08
42	Bed Plate, (not illustrated).....	3.00	121	Guide Thumb Screw.....	.10
43	Bed Clamp Screw.....	.04	126	Package Flat Shank Needles.....	.30
45	Bed Hinge, (complete).....	.30	127	Quilter.....	.04
48	Feed Bar.....	.25	128	Quilter Screw.....	.02
49	Feed Bar Pin.....	.01	131	Screw Driver.....	.10
50	Feed Horizontal Lever.....	.40	132	Shuttle Screw Driver.....	.05
51	Feed Horizontal Lever Cup Screw.....	.02	133	Wrench.....	.04
52	Feed Horizontal Lever Cup Screw Nut.....	.03	134	Automatic Spooler Frame, (not illus- trated).....	.25
53	Feed Point.....	.30	135	Automatic Spooler Screw.....	.02
54	Feed Point Screw.....	.02	136	Automatic Spooler Worm Gear.....	.25
55	Needle Plate.....	.18	137	Automatic Spooler Worm Gear Stud.....	.02
56	Needle Plate Screw.....	.02	138	Automatic Spooler Worm Gear Stud Nut.....	.02
57	Slide, (front).....	.20	139	Automatic Spooler Heart Cam.....	.04
58	Slide, (back).....	.20	140	Automatic Spooler Heart Cam Screw.....	.02
59	Shuttle Cradle.....	.20	141	Automatic Spooler Connection.....	.04
63	Shuttle Horizontal Lever.....	.30	142	Automatic Spooler Connection Stud.....	.02
64	Shuttle Horizontal Lever Screw.....	.02	143	Automatic Spooler Connection Rivet.....	.02
65	Shuttle Horizontal Lever Disc.....	.03	144	Automatic Spooler Distributor.....	.08
66	Shuttle Horizontal Lever Stud.....	.18	145	Automatic Spooler Distributor Screw.....	.02
67	Shuttle Horizontal Lever Stud Cone.....	.04	146	Automatic Spooler Spindle.....	.10
68	Shuttle Horizontal Lever Stud Cone Set Screw.....	.02	147	Automatic Spooler Spindle Pulley.....	.10
69	Shuttle Horizontal Lever Stud Cone Adjusting Screw.....	.04	148	Automatic Spooler Step.....	.02
77	Face Plate.....	1.00	149	Automatic Spooler Step Spring.....	.02
78	Face Plate Screw.....	.02	150	Automatic Spooler Step Nut.....	.04
79	Cross Head.....	.40	151	Automatic Spooler, complete.....	1.00
80	Cross Head Needle Bar Screw.....	.02	152	Attachment Holder Hub.....	.12
			153	Attachment Holder Screw.....	.03
			155	Attachment Holder Foot Screw.....	.02
			156	Attachment Holder Nut.....	.10
			157	Attachment Holder Presser Foot.....	.15
			158	Attachment Holder Hemmer Foot.....	.30
			160	Attachment Holder complete.....	.40

ILLUSTRATED PRICE LIST

... OF ...

STAND PARTS.



No.	NAME.	PRICE.	No.	NAME.	PRICE.
1	Right Leg.....	1.20	20	Pitman Pin.....	.02
2	Left Leg.....	1.20	21	Pitman Adjusting Screw.....	.02
3	Brace.....	.60	22	Belt.....	.10
4	Wheel.....	1.00	23	Belt Hook.....	.02
5	Wheel Guard.....	.60	24	Pitman.....	.10
6	Treadle.....	1.00	25	Drip Pan.....	.10
7	Treadle Support.....	.30	26	Table Hinge.....	.08
8	Caster.....	.04	27	Cover Lock.....	.20
9	Caster Pin.....	.02	28	Key.....	.04
10	Treadle Center Screw.....	.12	29	Side Drawer Lock.....	.20
11	Treadle Center Screw Nut.....	.04	30	Center Slide Drawer Lock.....	.20
12	Wheel Center Screw.....	.08	31	Cover Catch.....	.02
13	Wheel Center Screw Nut.....	.04	32	Cover Plate.....	.04
14	Wheel Center Blank.....	.06	33	Cover Lock Plate.....	.04
15	Brace Bolt.....	.04	34	Cover Lock Escutcheon.....	.02
16	Brace Bolt Nut.....	.02	35	Drawer Lock Escutcheon.....	.02
17	Brace Screw.....	.04	36	Leaf Bracket.....	.08
18	Wheel Guard Screw.....	.04	37	Leaf Bracket Support.....	.08
19	Panel Screw.....	.02			



When ordering Parts
the order they are in
name as well as the

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INSTRUCTION BOOK

FOR THE

HIGH-ARM

Philadelphia Singer

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